

PSEUDO-BJT BASED RETINAL FOCAL-PLANE SENSING SYSTEM

ABSTRACT OF THE DISCLOSURE

A Pseudo Bipolar Junction Transistor(Pseudo-BJT) based retinal focal-plane
5 sensing system is an instant image sensing and front-end processing system with the
advantages of high dynamic range and instant image processing. In addition, the
system proposes a Pseudo-BJT based retinal focal-plane sensor with adaptive current
Schmitt trigger and smoothing network for applying a new Pseudo-BJT circuit
structure to mimic parts of functions of the cells in the outer plexiform layer of the
10 real retina. It is suitable to resolve the existing technical drawbacks performing
major functions in optical image detecting circuits, such as image recognition, image
tracing, robot vision, bar-code/character readers, etc..

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